

ABSTRACT

A flat-panel projection display comprises a transparent slab and integral area grating, a transparent rod with rectangular cross-section and integral linear grating, arranged along the edge of the slab, and a small video projector. The projector is arranged to direct a virtual image into the end of the rod, directly or via mirrors, the light travelling along the rod via total internal reflection. The linear grating diverts the light into the plane of the slab, and the area grating projects it out of the slab towards a viewer, so that the viewer sees an image at infinity.